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Brief communication

Short-term reliability of retrospective childhood trauma reports in schizophrenia spectrum psychosis

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ABSTRACT

Childhood trauma (CT) refers to severe early life adversities, especially experiences of parental abuse and neglect. Patients with schizophrenia spectrum psychosis (SSP) report higher CT rates than the general population. As CT assessment in SSP samples has been mainly conducted retrospectively through adult recollections of childhood adverse events, reservations about the reliability and validity of these reports have arisen. We sought to explore the short-term reliability of retrospective CT reports in sixty-three patients with SSP, by assessing the concurrent validity and test-retest reliability of the data. Two CT self-report measures, the Childhood Experience of Care and Abuse Questionnaire (CECA.Q) and the Parental Bonding Instrument (PBI) were employed for this task. High concurrent validity was detected between CECA.Q antipathy scales and PBI care and overprotection scales; and between CECA.Q neglect scales and PBI care scales. High test-retest reliability was confirmed for all CECA.Q and PBI scales. Our findings indicate that retrospective CT self-report measures are a reliable means of assessing early life adversities in SSP. However, further provisions should be taken to increase the reliability of retrospective reports, especially corroboration of the events through other sources and removal of latent confounders, such as psychopathology, memory fallacies and social desirability biases.

KEYWORDS: Childhood trauma, schizophrenia, retrospective reports, test-retest reliability, concurrent validity, parental abuse and neglect.

Introduction

Childhood trauma (CT) is a comprehensive term encompassing a wide array of early life adversities that negatively impact normal child development and growth.[1] Attention is mainly focused on inadequate or inappropriate parental behaviors that fail to meet the physical and psychological needs of the developing child. These negative child-rearing behaviors may include acts of commission (i.e., emotional, physical, sexual abuse of the child) or acts of omission (i.e., emotional, physical, medical, educational neglect, inadequate supervision and exposure of the child to violent environments) on the part of the primary caregiver.[1]

Research has repeatedly shown high rates of early life adversities in individuals with clinical or subclinical psychosis,[2] and CT has been identified as a prominent social risk factor for the emergence of psychotic symptoms.[3] However, the validity of these findings has been questioned because research in this domain has been mainly conducted retrospectively, namely through adult recollections of childhood traumatic events. Due to this retrospective design, several concerns have been raised regarding the reliability of the patients' CT reports.[4]

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These reservations largely emanate from the intrusion of confounding factors, affecting the accuracy of these recollections, such as fallacies and limitations of normal memory functioning,[5] cognitive impairments associated with trauma and psychosis,[6] social desirability bias and stigmatization avoidance.[7]

Normal memory fallibility

Caveats of autobiographical memory

Autobiographical memories, such as those associated with childhood experiences of abuse and neglect, are neither literal reproductions nor radical reconstructions of past events.[8] They can be better conceptualized as partially modified recollections of the original material either due to the expected time-lapse effects and age-related deterioration of normal memory functions,[5] or due to the inherent psychological need of the individual to maintain a viable and consistent self-narrative.[8]

Childhood amnesia

Childhood amnesia refers to the sparse recollection of personal events occurring in early childhood.[5] Due to this encoding and retrieval deficit, early life experiences are stored in a fragmented and incohesive manner, thus making them prone to loss, later suggestion and inaccuracies.[8]

Impact of trauma and psychosis

Posttraumatic stress and psychosis may impair normal recall processes and lead to unfaithful or deceptive reconstructions of past events in an effort after meaning.[6] In this sense, retrospective CT reports may deviate from the original material and essentially form an alternative life script, an existential reconstruction seeking to provide a more bearable explanation for one's current affliction and distress.[9]

Social desirability

The embarrassing and upsetting nature of various CT forms (e.g., sexual abuse) may lead individuals to minimize or deny the occurrence of such events, in an attempt to avoid social stigmatization.[7]

Research indicating reliability of retrospective CT reports

Despite the aforementioned reservations, research has provided evidence that retrospective CT reports are stable across long periods of time,[4,10] uninfluenced by acute symptomatology,[4,11] and congruous with other sources of relevant information.[4] Furthermore, the effect of CT on risk for psychosis appears to be comparable across retrospective and prospective study designs.[2] This is a significant finding, since prospective designs are considered more reliable as they usually follow up samples with documented early life adversities.

The present study aimed to explore the short-term reliability (i.e., stability) of retrospective CT reports in schizophrenia spectrum psychosis (SSP), by assessing the concurrent validity and test-retest reliability of these reports. Concurrent validity was chosen as a measure of report similarity, while test-retest reliability as a measure of temporal stability.

Material and method

Participants and procedure

Early relational trauma due to abusive or neglectful parenting was assessed in 63 SSP patients (44 men; 19 women) through the employment of two CT self-report measures, the Childhood Experience of Care and Abuse Questionnaire (CECA.Q)[12] and the Parental Bonding Instrument (PBI).[13] Both measures were administered on two separate occasions (T_1: initial testing, inpatient status; T_2: outpatient status, three months after T_1). At the time of initial testing, all patients received antipsychotic medication.

All patients met DSM-IV criteria for Schizophrenia and other Psychotic Disorders, with the exception of Psychotic Disorder Due to a General Medical Condition and Substance-Induced Psychotic Disorder.

CT measures

CECA.Q is a self-report measure designed to elicit information about experiences of parental antipathy (i.e., hostile, cold, rejecting, scapegoating behaviors towards the child), parental neglect (i.e., disinterest in child's material care, health, schoolwork, friendships), physical abuse perpetrated by parents, and sexual abuse perpetrated by adults during childhood and adolescence.[12]

PBI is a brief self-report questionnaire evaluating one's perceived parenting during the first 16 years of life. The instrument extracts two scales for each parent, parental care and parental overprotection (excessive control, intrusiveness, restrictiveness), which represent the two principal structural dimensions of parental attitudes towards the child.[13] The intersection of these two scales according to specific cut-off scores provides four parenting styles: optimal parenting (high care+low overprotection), affectionless control (low care+high overprotection), affectionate constraint (high care+high overprotection), neglectful parenting (low care+low overprotection).[14]

Statistical analysis

Statistical analyses were performed using SPSS version 22.0. software package for Windows. Kolmogorov-Smirnov test was used to check for normality, and variables were also examined for skewness and kurtosis. As the variables of interest were not normally distributed, Spearman's correlation coefficient (rho) was employed to explore the concurrent validity and test-retest reliability of the data.

Whole sample (n=63) CECA.Q and PBI T_1 scores were used to test concurrent validity. Test-retest reliability was explored by correlating T_1 and T_2 CECA.Q and PBI scores in those patients who gave positive CT reports at T_1 (n=46).

Results

Baseline demographics

The SSP group consisted predominantly of male chronic patients with high-school level of education (table 1).

Childhood trauma rates

At T_1, 46 SSP patients gave positive CT reports. T_2 re-testing confirmed CT history in 42 of them. Two thirds of the patients reported at least one severe CT type (table 2). Polytraumatization (i.e., history of ≥ two CT types) was present in 46% of the SSP group, with 17.5% of the patients reporting two and 28.6% more than two CT types.

Parenting style rates

Patients' perceived parenting experiences revealed high rates of low parental care (63.5% low maternal care; 63.5% low paternal care) and high parental overprotection (73% high maternal overprotection; 65.1% high paternal overprotection).

For both parents, the prevalent combined parenting style was that of maternal and paternal affectionless control (table 2).

Concurrent validity of CECA.Q vs PBI

High concurrent validity was detected between CECA.Q parental antipathy scales and PBI parental care and overprotection scales; and between CECA.Q parental neglect scales and PBI parental care scales (table 3).

Test-retest reliability of CECA.Q and PBI scales

High test-retest reliability was confirmed for all CECA.Q and PBI scales (table 4).

Table 1. Baseline demographics.

	SSP* patients (n=63)
Gender (% male)	69.84
Age (Mean; SD)	40.44 (10.003)
Level of education in years (Mean; SD)	11.13 (3.270)
Age of SSP onset	29.65 (9.09)
Duration of illness (months)	130.14 (121.11)
Chlorpromazine equivalent dose mg/d (Mean; SD)	1024.1 (669.8)

*SSP: Schizophrenia-Spectrum Psychosis

Discussion

Regarding CT rates, our study confirms the high prevalence of childhood abuse and neglect in patients with psychosis.[2] We offer a more detailed analysis on this in a previous paper exploring associations between CT, adult attachment style and psychopathology.[15]

Regarding the perceived parental rearing behaviors, our study corroborates previous results indicating a clear preponderance of the affectionless control style in UHR risk for psychosis[16] and SSP samples.[17]

Table 2. Childhood Trauma rates and perceived parenting experiences in the Schizophrenia-Spectrum Psychosis group (n=63)

CT rates	n	%	Perceived parenting styles	n	%
Total*	42	66.7	Maternal optimal parenting	12	19.0
Mother Antipathy	15	23.8	Maternal affectionless control	35	55.6
Mother Neglect	11	17.5	Maternal affectionate constraint	11	17.5
Father Antipathy	18	28.6	Maternal neglectful parenting	5	7.9
Father Neglect	11	17.5	Paternal optimal parenting	13	20.6
Mother Physical Abuse	14	22.2	Paternal affectionless control	31	49.2
Father Physical Abuse	14	22.2	Paternal affectionate constraint	10	15.9
Sexual Abuse	13	20.6	Paternal neglectful parenting	9	14.3

*Presence of at least one severe CT type

Table 3. Concurrent validity: Spearman's correlations between Childhood Experiences of Care and Abuse Questionnaire (CECA.Q) and Parental Bonding Instrument (PBI).

	PBI Mother Care		PBI Mother Overprotection	
	rho	p	rho	p
CECA.Q Mother Antipathy	–0.618	<0.001	0.470	<0.001
CECA.Q Mother Neglect	–0.566	<0.001	0.242	0.056
	PBI Father Care		**PBI Father Overprotection**	
	rho	p	rho	p
CECA.Q Father Antipathy	–0.798	<0.001	0.493	<0.001
CECA.Q Father Neglect	–0.636	<0.001	0.112	0.385

Table 4. Test-retest reliability: Spearman's correlations between T_1 vs T_2* scores on Childhood Experiences of Care and Abuse Questionnaire (CECA.Q) and Parental Bonding Instrument (PBI).

CECA.Q T1 vs T2			PBI T1 vs T2		
CECA.Q scales	rho	p	PBI scales	rho	p
Mother Antipathy	0.719	<0.001	Mother Care	0.798	<0.001
Father Antipathy	0.853	<0.001	Father Care	0.852	<0.001
Mother Neglect	0.655	<0.001	Mother Overprotection	0.794	<0.001
Father Neglect	0.713	<0.001	Father Overprotection	0.894	<0.001
Mother Physical Abuse	0.904	<0.001			
Father Physical Abuse	0.956	<0.001			
Sexual Abuse	0.860	<0.001			

*T_1: initial testing, inpatient status; T_2: outpatient status, three months after T_1

Our findings stand in accordance with prior research that indicates adequate reliability of CT reports in adult patients with psychosis, especially of CT data gathered retrospectively through brief self-report questionnaires.[4,10,11]

Proper research designs that can reliably explore the occurrence and intensity of early life adversities are necessary for the clarification of the complex CT-psychosis association. The optimal method of assessing the impact of CT on the subsequent development of psychotic symptomatology would be through prospective studies of psychosis emergence in children and adolescents with officially documented early experiences of abuse and neglect. However, the increased cost and practical difficulties of prospective designs severely limit their actual feasibility. Hence, out of practical necessity, research in this area usually resorts to the retrospective assessment of CT in adult samples, either through comprehensive interviews or brief questionnaires, thus raising questions about the reliability of these reports.

While the reliability reservations cannot be answered definitively, we deem that our study offers adequate evidence substantiating the stability of retrospective CT reports in patients with SSP, as these reports did not show significant fluctuation across different measures and different times of testing.

As already mentioned, four patients failed to replicate their initial T_1 positive CT reports at T_2. This is by no means an unexpected finding, since it has already been documented in related literature.[4] Bearing in mind that T_1 corresponded to the acute phase of illness, these initial false positives may be attributed to the confounding effect of severe psychopathology. As the magnitude of this replication failure was very low, the overall test-retest reliability was not affected.

High levels of concurrent validity were detected between CECA.Q and PBI scales, with the exception of CECA.Q neglect and PBI overprotection scales. These findings are in full agreement with prior research in this area.[4]

Our study did not remove the potential confounding effect of psychopathology on retrospective CT reports, a failure that weakens the strength of our results.

Regarding the matter of validity, that is whether retrospective CT reports reflect true life events, we cannot provide any meaningful insights, since this issue exceeded the scope of our study. Retrospective designs cannot

fully exclude the intrusion of invalid CT reports, unless there is some corroboration of reported events through third-party accounts or official child abuse and neglect registries. Despite our inability to productively address the validity issue, we may point out that the observed temporal stability can be regarded a necessary, albeit not sufficient, condition for a retrospective report to be valid.

In conclusion, we propose that retrospective CT data, based on brief self-evaluation questionnaires, are adequately reliable in assessing early experiences of abuse and neglect in patients with SSP. At the same time, we acknowledge the inherent limitations of this method and we strongly suggest the inclusion of further provisions to increase the reliability of the reports, especially corroboration of the events through other sources and removal of latent confounders, such as psychopathology, social desirability biases and memory fallacies.

References

1. Leeb RT, Paulozzi L, Melanson C, Simon T, Arias I. *Child maltreatment surveillance: uniform definitions for public health and recommended data elements,* Version 1.0. Centers for Disease Control and Prevention. National Center for Injury Prevention and Control, Atlanta, GA, 2008
2. Varese F, Smeets F, Drukker M, Lieverse R, Lataster T, Viechtbauer W et al. Childhood adversities increase the risk of psychosis: a meta-analysis of patient-control, prospective- and cross-sectional cohort studies. *Schizophr Bull* 2012, 38:661–671, doi: 10.1093/schbul/sbs050
3. van Os J, Kenis G, Rutten B. The environment and schizophrenia. *Nature* 2010, 468:203–212, doi: 10.1038/nature09563
4. Fisher HL, Craig TK, Fearon P, Morgan K, Dazzan P, Lappin J et al. Reliability and comparability of psychosis patients' retrospective reports of childhood abuse. *Schizophr Bull* 2011, 37:546–553, doi: 10.1093/schbul/sbp103
5. Piolino P, Desgranges B, Benali K, Eustache F. Episodic and semantic remote autobiographical memory in ageing. *Memory* 2002, 10:239-257, doi:10.1080/09658210143000353
6. Ricarte JJ, Ros L, Latorre JM, Watkins E. Mapping autobiographical memory in schizophrenia: Clinical implications. *Clin Psychol Rev* 2017, 51:96–108, doi:10.1016/j.cpr.2016.11.004
7. Rosenbaum A, Langhinrichsen-Rohling J. Meta-research on violence and victims: the impact of data collection methods on findings and participants. *Violence Vict* 2006, 21:404–409, PMID: 16897909
8. Rogers ML. Factors influencing recall of childhood sexual abuse. *J Trauma Stress* 1995, 8:691–716, doi: 10.1007/BF02102895
9. Offer D, Kaiz M, Howard KI, Bennett ES. The altering of reported experiences. *J Am Acad Child Adolesc Psychiatry* 2000, 39:735–742, doi: 10.1097/00004583-200006000-00012
10. Shannon C, Hanna D, Tumelty L, Waldron D, Maguire C, Mowlds W et al. Reliability of reports of childhood trauma in bipolar disorder: A test-retest study over 18 months. *J Trauma Dissociation* 2016, 17:511–519, doi: 10.1080/15299732.2016.1141147
11. Simpson S, Phillips L, Baksheev G, Garner B, Markulev C, Phassouliotis C et al. Stability of retrospective self-reports of childhood trauma in first-episode psychosis. *Early Interv Psychiatry* 2019, 13:908–913, doi: 10.1111/eip.12700
12. Bifulco A, Bernazzani O, Moran PM, Jacobs C. The childhood experience of care and abuse questionnaire (CECA.Q): validation in a community series. *Br J Clin Psychol* 2005, 44:563–581, doi: 10.1348/0144 66505X35344
13. Parker G, Tupling H, Brown LB. A Parental Bonding Instrument. *Br J Med Psychol* 1979, 52:1–10, doi: 10.1111/j.2044-8341.1979.tb02487.x
14. Parker G, Fairley M, Greenwood J, Jurd S, Silove D. Parental representations of schizophrenics and their association with onset and course of schizophrenia. *Br J Psychiatry* 1982, 141: 573–581, doi: 10.1192/bjp.141.6.573
15. Chatziioannidis S, Andreou C, Agorastos A, Kaprinis S, Malliaris Y, Garyfallos G et al. The role of attachment anxiety in the relationship between childhood trauma and schizophrenia-spectrum psychosis. *Psychiatry Res* 2019, 276:223–231, doi: 10.1016/j.psychres.2019.05.021
16. Peh OH, Rapisarda A, Lee J. Quality of parental bonding is associated with symptom severity and functioning among individuals at ultra-high risk for psychosis. *Schizophr Res* 2020, 215:204–210, doi: 10.1016/j.schres.2019.10.029
17. Onstad S, Skre I, Torgersen S, Kringlen E. Parental representation in twins discordant for schizophrenia. *Psychol Med* 1993, 23:335–340, doi: 10.1017/s0033291700028439

Σύντομο άρθρο

Η βραχυπρόθεσμη αξιοπιστία των αναδρομικών αναφορών παιδικού ψυχικού τραύματος στις ψυχώσεις σχιζοφρενικού φάσματος

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ΠΕΡΙΛΗΨΗ

Ο όρος Παιδικό Ψυχικό Τραύμα (ΠΨΤ) αναφέρεται σε αντίξοες εμπειρίες της παιδικής ηλικίας, ιδιαιτέρως εμπειρίες γονεϊκής κακοποίησης και παραμέλησης, που επηρεάζουν την ομαλή ψυχολογική ανάπτυξη του ατόμου. Οι ασθενείς με ψυχώσεις του σχιζοφρενικού φάσματος (ΨΣΦ) αναφέρουν υψηλότερα ποσοστά ΠΨΤ σε σχέση με το γενικό πληθυσμό. Επειδή η αξιολόγηση του ΠΨΤ στους ασθενείς με ΨΣΦ διενεργείται συνήθως αναδρομικά, έχουν διατυπωθεί επιφυλάξεις ως προς την αξιοπιστία και την εγκυρότητα αυτών των αναφορών. Η παρούσα μελέτη διερεύνησε τη βραχυπρόθεσμη αξιοπιστία των αναδρομικών αναφορών ΠΨΤ σε ένα δείγμα 63 ασθενών με ΨΣΦ, μέσω του ελέγχου της συντρέχουσας εγκυρότητας και της αξιοπιστίας εξέτασης-επανεξέτασης. Χορηγήθηκαν δύο ερωτηματολόγια αναδρομικής αξιολόγησης του ΠΨΤ, το Ερωτηματολόγιο Εμπειριών Φροντίδας και Κακοποίησης στην Παιδική Ηλικία (CECA.Q) και το Όργανο Μέτρησης του Γονεϊκού Δεσμού (PBI). Διαπιστώθηκε υψηλή συντρέχουσα εγκυρότητα μεταξύ των κλιμάκων γονεϊκής αντιπάθειας του CECA.Q και των κλιμάκων γονεϊκής φροντίδας και υπερπροστασίας του PBI, όπως επίσης και μεταξύ των κλιμάκων γονεϊκής παραμέλησης του CECA.Q και των κλιμάκων γονεϊκής φροντίδας του PBI. Οι καταγραφές αμφοτέρων των ερωτηματολογίων παρουσίασαν υψηλή αξιοπιστία εξέτασης-επανεξέτασης. Τα ανωτέρω ευρήματα υποδεικνύουν ότι οι αναδρομικές αναφορές ΠΨΤ σε ασθενείς με ΨΣΦ έχουν επαρκή βραχυπρόθεσμη αξιοπιστία. Για την πληρέστερη, όμως, διερεύνηση του ΠΨΤ, απαιτείται η επιβεβαίωση των αναδρομικών αναφορών μέσω πρόσθετων πηγών και η απομάκρυνση συγχυτικών παραγόντων που μπορεί να επηρεάζουν την αξιοπιστία και εγκυρότητα των καταγραφών, όπως η ψυχοπαθολογία, τα εγγενή σφάλματα της μνήμης και ο φόβος κοινωνικού στιγματισμού.

ΛΕΞΕΙΣ ΕΥΡΕΤΗΡΙΟΥ: Παιδικό ψυχικό τραύμα, σχιζοφρένεια, αναδρομικές αναφορές, αξιοπιστία εξέτασης-επανεξέτασης, συντρέχουσα εγκυρότητα, γονεϊκή κακοποίηση και παραμέληση.

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